

# Toxic Shock Syndrome

*Disease Fact Sheet Series*

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## What is Toxic Shock Syndrome (TSS)?

Toxic Shock Syndrome is a serious illness most often caused by the bacteria *Staphylococcus aureus* and less commonly *Streptococcus pyogenes* (group A streptococci) both of which can produce "toxins." TSS was first recognized in 1978 and was later associated with tampon use in adolescents and young menstruating women in the majority of those cases. TSS is now known to be associated with other risk factors such as surgical wounds and childbirth.

## What are the symptoms of Toxic Shock Syndrome (TSS)?

TSS has a rapid onset characterized by fever, low blood pressure, kidney failure, and multi-system organ involvement. Profuse watery diarrhea, vomiting and rash are usually present with *Staphylococcus aureus* TSS, but less commonly with *Streptococcus pyogenes* (group A streptococci) TSS.

## How does a person get Toxic Shock Syndrome (TSS)?

*Staphylococcus aureus* bacteria can be part of the normal bacteria found in the nostrils and other parts of the body. Infection is usually associated with surgical wounds, placement of catheters or stents, childbirth, or with the use of feminine hygiene or contraceptive products. Infection usually originates from the normal bacteria found on the patient. Transmission of TSS from another person is very rare.

*Streptococcus pyogenes* (group A streptococci) Toxic Shock Syndrome seems to be most common in children, particularly those with chickenpox, and the elderly. Again, infection usually originates from the normal bacteria found on the patient.

## How common is Toxic Shock Syndrome (TSS)?

The highest number of TSS cases nationwide occurred in 1979-1980 (approximately 6-12 cases per 100,000 people). Since then, changes in tampon composition and a decrease in absorbency has caused a marked decrease in the number of cases nationwide. The percentage of menstrually related cases has been declining in the past decade while the percentage of post-surgical cases has been increasing.

## How is Toxic Shock Syndrome diagnosed and treated?

TSS is diagnosed using clinical symptoms. The clinical case definition includes several categories of symptoms affecting multiple systems in the body. A "confirmed case" must exhibit symptoms from all of the categories.

Treatment includes the use of antibiotics and supportive treatment to prevent dehydration and organ failure.